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1638

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/850,982B

DATE: 04/24/2002

TIME: 14:10:26

Input Set : A:\88265-4025.txt

Output Set: N:\CRF3\04242002\I850982B.raw

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3 <110> APPLICANT: Nestec S.A.
5 <120> TITLE OF INVENTION: COFFEE MANNANASE
7 <130> FILE REFERENCE: 88265-4025
9 <140> CURRENT APPLICATION NUMBER: 09/850,982B
10 <141> CURRENT FILING DATE: 2001-05-08
12 <160> NUMBER OF SEQ ID NOS: 12
14 <170> SOFTWARE: PatentIn version 3.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 1613
18 <212> TYPE: DNA
19 <213> ORGANISM: Coffea arabica
21 <400> SEQUENCE: 1
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24 tgtgatcatc gtcttatccc tgcattgcga aaatcatata gtttcttctt ctgcttcgcg      120
26 ctttattcaa acaagaggaa cccgattcgt gttaggtggc taccattttt ttttcaatgg      180
28 gttcaactcc tactggatga tgcattgtgc agctgagcca agtgaaaggc ataaaaattc      240
30 caatgtatct cgcgaggctg ctgctacagg gcttactgtt tgccggacat gggcatttcag      300
32 cgatgggtgg gatcgagctc ttcaaatgtc ccccgagctc tatgatgaac gtgtctttca      360
34 ggcccttgat tttgtggtat cggaagcaag gaagtatgga gttcacttaa tcttgagtct      420
36 gaccaacaac tacaaggact ttggaggaag gacgcaatac gtgacgtggg ctaaaaatgc      480
38 cggagtacaa gtgaatagcg atgatgattt ttacaccaag aatgctgtca agggatatta      540
40 caagaatcac attaagaaaag tgttgactag gatcaacaca atcagtagag ttgcatataa      600
42 agatgatcca acagtcatgg catgggagct aataaatgaa cctcgttgcc aggtcgactt      660
44 ctccggaaaa accttaaatg cttgggttca agaaatggca acttacgtca aatcactcga      720
46 taacaaacac cttctagaaa taggcattgga gggattctac ggagattcaa tgccaggcaa      780
48 aaagcagtag aatcctggat accaagtggg cacagatttt atcaccaata atcttatcaa      840
50 agagatagat tttgcaacca ttcatgcata tcccgatatt tggctgtctg gacagagcga      900
52 cgggtgcacag atgatgttca tgagaagggt gatgaccagt cactccacag actctaagac      960
54 catacttaaa aaaccattgg ttctcgctga atttgggaaa tcaagtaaaag atccaggata      1020
56 cagttttatat gccaggaggc cattcatggc cgcaatttac ggtgatattt acaggtttgc      1080
58 tagaagagga ggcattgcag gtggattggt ttggcaaato ctggccgagg gaatgcaacc      1140
60 gtacgcagat gggatgaaa ttgtcttgtc tcgaaccca tcaaccggac gaatcataag      1200
62 ccaacagtct cgacaaatga cttcactcga ccatatgagc agtaaatagaa ccaatttca      1260
64 aagcaacaaa ctgcgcaatt caaaggagca gtgatcagtc ttccagaaaag tctacttgag      1320
66 tttgttcgta tgtcaaaatc aagtatcaac catagaaatt tccattatat tcggagtgtt      1380
68 ttagtcaagt tctagtaata ccgctggagt catgatagtt atgacagtaa taccgctgga      1440
70 gtcaagttct agtaataccg ttggagtcga gttatgatag ttatttaaaa attagtattt      1500
72 tattacaaat ttgttattgt gtgagacttg tttattaagt aaatggaaaa gtcttatcat      1560
74 tattatcatt tgagaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa      1613
77 <210> SEQ ID NO: 2
78 <211> LENGTH: 427
79 <212> TYPE: PRT
80 <213> ORGANISM: Coffea arabica

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82 <400> SEQUENCE: 2
84 Met Ala Phe Ser Arg Arg Ser Asn Ile Ser Asn Phe Ser Cys Cys Phe
85 1 5 10 15
88 Leu Val Ile Ile Val Leu Ser Leu His Cys Glu Asn His Ile Val Ser
89 20 25 30
92 Ser Ser Ala Ser Arg Phe Ile Gln Thr Arg Gly Thr Arg Phe Val Leu
93 35 40 45
96 Gly Gly Tyr Pro Phe Phe Phe Asn Gly Phe Asn Ser Tyr Trp Met Met
97 50 55 60
100 His Val Ala Ala Glu Pro Ser Glu Arg His Lys Ile Ser Asn Val Phe
101 65 70 75 80
104 Arg Glu Ala Ala Ala Thr Gly Leu Thr Val Cys Arg Thr Trp Ala Phe
105 85 90 95
108 Ser Asp Gly Gly Asp Arg Ala Leu Gln Met Ser Pro Gly Val Tyr Asp
109 100 105 110
112 Glu Arg Val Phe Gln Ala Leu Asp Phe Val Val Ser Glu Ala Arg Lys
113 115 120 125
116 Tyr Gly Val His Leu Ile Leu Ser Leu Thr Asn Asn Tyr Lys Asp Phe
117 130 135 140
120 Gly Gly Arg Thr Gln Tyr Val Thr Trp Ala Lys Asn Ala Gly Val Gln
121 145 150 155 160
124 Val Asn Ser Asp Asp Asp Phe Tyr Thr Lys Asn Ala Val Lys Gly Tyr
125 165 170 175
128 Tyr Lys Asn His Ile Lys Lys Val Leu Thr Arg Ile Asn Thr Ile Ser
129 180 185 190
132 Arg Val Ala Tyr Lys Asp Asp Pro Thr Val Met Ala Trp Glu Leu Ile
133 195 200 205
136 Asn Glu Pro Arg Cys Gln Val Asp Phe Ser Gly Lys Thr Leu Asn Ala
137 210 215 220
140 Trp Val Gln Glu Met Ala Thr Tyr Val Lys Ser Leu Asp Asn Lys His
141 225 230 235 240
144 Leu Leu Glu Ile Gly Met Glu Gly Phe Tyr Gly Asp Ser Met Pro Gly
145 245 250 255
148 Lys Lys Gln Tyr Asn Pro Gly Tyr Gln Val Gly Thr Asp Phe Ile Thr
149 260 265 270
152 Asn Asn Leu Ile Lys Glu Ile Asp Phe Ala Thr Ile His Ala Tyr Pro
153 275 280 285
156 Asp Ile Trp Leu Ser Gly Gln Ser Asp Gly Ala Gln Met Met Phe Met
157 290 295 300
160 Arg Arg Trp Met Thr Ser His Ser Thr Asp Ser Lys Thr Ile Leu Lys
161 305 310 315 320
164 Lys Pro Leu Val Leu Ala Glu Phe Gly Lys Ser Ser Lys Asp Pro Gly
165 325 330 335
168 Tyr Ser Leu Tyr Ala Arg Glu Ser Phe Met Ala Ala Ile Tyr Gly Asp
169 340 345 350
172 Ile Tyr Arg Phe Ala Arg Arg Gly Gly Ile Ala Gly Gly Leu Val Trp
173 355 360 365
176 Gln Ile Leu Ala Glu Gly Met Gln Pro Tyr Ala Asp Gly Tyr Glu Ile
177 370 375 380

```

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```

180 Val Leu Ser Gln Asn Pro Ser Thr Gly Arg Ile Ile Ser Gln Gln Ser
181 385                               390                               395                               400
184 Arg Gln Met Thr Ser Leu Asp His Met Ser Ser Asn Arg Thr Asn Ser
185                               405                               410                               415
188 Gln Ser Asn Lys Leu Arg Asn Ser Lys Glu Gln
189                               420                               425

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192 <210> SEQ ID NO: 3

193 <211> LENGTH: 20

194 <212> TYPE: DNA

195 <213> ORGANISM: Artificial Sequence

197 <220> FEATURE:

198 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc

Scientifi

199 que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be

200 lguim).

202 <220> FEATURE:

203 <221> NAME/KEY: misc_feature

204 <222> LOCATION: (3)..(3)

205 <223> OTHER INFORMATION: a or c or g or t/u

208 <220> FEATURE:

209 <221> NAME/KEY: misc_feature

210 <222> LOCATION: (12)..(12)

211 <223> OTHER INFORMATION: a or c or g or t/u

214 <400> SEQUENCE: 3

20

W--> 215 ggnatggarg gnttytaygg

218 <210> SEQ ID NO: 4

219 <211> LENGTH: 15

220 <212> TYPE: DNA

221 <213> ORGANISM: Artificial Sequence

223 <220> FEATURE:

224 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc

Scientifi

225 que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be

226 lguim).

228 <400> SEQUENCE: 4

15

229 tttttttttt ttttt

232 <210> SEQ ID NO: 5

233 <211> LENGTH: 17

234 <212> TYPE: DNA

235 <213> ORGANISM: Artificial Sequence

237 <220> FEATURE:

238 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc

Scientifi

239 que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be

240 lguim).

242 <400> SEQUENCE: 5

17

243 aaatctgtgc ccacttg

246 <210> SEQ ID NO: 6

247 <211> LENGTH: 17

248 <212> TYPE: DNA

249 <213> ORGANISM: Artificial Sequence

251 <220> FEATURE:

RAW SEQUENCE LISTING
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Input Set : A:\88265-4025.txt
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252 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc Scientifi

253 que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be

254 lguim).

256 <400> SEQUENCE: 6 17

257 gtaaaacgac ggccagt

260 <210> SEQ ID NO: 7

261 <211> LENGTH: 17

262 <212> TYPE: DNA

263 <213> ORGANISM: Artificial Sequence

265 <220> FEATURE:

266 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc

Scientifi

267 que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be

268 lguim).

270 <400> SEQUENCE: 7 17

271 caggaaacag ctatgac

274 <210> SEQ ID NO: 8

275 <211> LENGTH: 21

276 <212> TYPE: PRT

277 <213> ORGANISM: Coffea arabica

279 <220> FEATURE:

280 <221> NAME/KEY: MISC_FEATURE

281 <222> LOCATION: (16)..(16)

282 <223> OTHER INFORMATION: variable

285 <400> SEQUENCE: 8

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288 1 5 10

291 Arg Phe Leu Tyr Leu

292 20

295 <210> SEQ ID NO: 9

296 <211> LENGTH: 10

297 <212> TYPE: PRT

298 <213> ORGANISM: Coffea arabica

300 <400> SEQUENCE: 9

302 Thr Trp Ala Phe Ser Asp Gly Gly Tyr Arg 10

303 1 5

306 <210> SEQ ID NO: 10

307 <211> LENGTH: 17

308 <212> TYPE: PRT

309 <213> ORGANISM: Coffea arabica

311 <400> SEQUENCE: 10

313 Glu Tyr Asn Pro Gly Tyr Gln Val Gly Thr Asp Phe Ile Ser Asn Asn 15

314 1 5 10

317 Arg

321 <210> SEQ ID NO: 11

322 <211> LENGTH: 36

323 <212> TYPE: DNA

324 <213> ORGANISM: Artificial Sequence

326 <220> FEATURE:

327 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc

Scientifi

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Input Set : A:\88265-4025.txt

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328     que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be
329     lguim).
331 <400> SEQUENCE: 11
332 gtcttatccc tggatcccgaaatcatatagtttct
335 <210> SEQ ID NO: 12
336 <211> LENGTH: 40
337 <212> TYPE: DNA
338 <213> ORGANISM: Artificial Sequence
340 <220> FEATURE:
341 <223> OTHER INFORMATION: Synthetic oligonucleotides provided by Eurogentec (Parc
Scientifi
342     que due Sart Tilman [Sart Tilman Scientific Park]-4102 Seraing-Be
343     lguim).
345 <400> SEQUENCE: 12
346 gtactctgca gactttctgg aagactgatactgctcctt
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36

40

RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : A:\88265-4025.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,12
Seq#:8; Xaa Pos. 16

VERIFICATION SUMMARY

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Input Set : A:\88265-4025.txt

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L:215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0